

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number : 09/938,670 Confirmation No.: 2509  
Applicant : Jens PETERSEN et al.  
Filed : August 27, 2001  
Title : POLYACRYLAMIDE HYDROGEL AND ITS USE AS AN  
ENDOPROSTHESIS  
TC/Art Unit : 3738  
Examiner: : David J. Isabella  
  
Docket No. : 60117.000007  
Customer No. : 21967

**MAIL STOP AMENDMENT**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION FOR TWO-MONTH EXTENSION OF TIME,  
STATEMENT OF SUBSTANCE OF INTERVIEW UNDER 37 C.F.R. § 1.133  
AND RESPONSE UNDER 37 C.F.R. § 1.111**

Sir:

**PETITION**

Applicants respectfully petition for a two-month extension of time under 37 C.F.R. § 1.136(a) for responding to the non-final Office Action mailed September 28, 2005 in the above-captioned application ("the Application"). The Commissioner is hereby authorized to charge the required large entity fee, in the amount of \$450.00, to the undersigned's Deposit Account No. 50-0206. Accordingly, it is respectfully requested that the time for response be extended up to and including February 28, 2006.

**RESPONSE**

This Response is filed in reply to the non-final Office Action mailed September 28, 2005 and in view of the Examiner interview held on February 22, 2006 for the Application.

**Amendments to the claims** are reflected in the listing of claims which begins on page 2 of this Amendment.

**Remarks** begin on page 5 of this Amendment.

## AMENDMENT

This listing of claims will replace all prior versions and listings of claims in the Application. Please amend the claims as follows:

### Listing of Claims:

1. (Currently amended) A bio-stable hydrogel for use as an endoprosthesis, the hydrogel comprising:

a polyacrylamide which includes a polymer of acrylamide cross-linked with methylene bis-acrylamide, wherein the acrylamide and methylene bis-acrylamide are combined in a molar ratio of 150:1 to 1000:1 and wherein the hydrogel comprises about 0.5 to less than 3.5% of the polyacrylamide by weight, based on the total weight of the hydrogel, and

water or an aqueous solution,

wherein the hydrogel comprises less than 50 ppm of acrylamide and methylene bis-acrylamide monomers; and wherein the hydrogel has an elasticity module from about 10 to 700 Pa and a complex viscosity from about 2 to 90 Pas.

2. (Currently amended) A hydrogel according to claim 1 or 51 wherein the hydrogel comprises at least 95% by weight water or aqueous solution based on the total weight of the hydrogel.

3. (Cancelled)

4. (Cancelled)

5. (Previously presented) A hydrogel according to claim 1, comprising at least 1% by weight of the polyacrylamide, based on the total weight of the hydrogel.

6. (Cancelled)

7. (Previously presented) A hydrogel according to claim 1, which has a complex viscosity from about 5 to 80 Pas.

8. (Previously presented) A hydrogel according to claim 1, which has an elasticity module of not less than 20 Pa.
9. (Previously presented) A hydrogel according to claim 1, which has an elasticity module from about 35 to 480 Pa.
10. (Previously presented) A hydrogel according to claim 1, which has a cross-linking density of about 0.2 to 0.5%.
11. (Previously presented) A hydrogel according to claim 1, wherein the acrylamide and methylene bis-acrylamide are combined in the molar ratio of from 175:1 to 800:1.
12. (Previously presented) A hydrogel according to claim 1, for use as an implantable endoprosthesis.
- 13-43. (Cancelled)
44. (Previously presented) A hydrogel according to claim 1, for use as an injectable endoprosthesis.
45. (Previously presented) A hydrogel according to claim 1, wherein the complex viscosity is from 6 to 40 Pas.
46. (Previously presented) A hydrogel according to claim 1, for use in an implantable endoprosthesis comprising a silicone-based envelope.
47. (Previously presented) A hydrogel according to claim 1 further comprising cells for cellular engraftment.
48. (Previously presented) A hydrogel according to claim 1 which comprises 0.5 to 3.47% of the polyacrylamide by weight, based on the total weight of the hydrogel.
49. (Previously presented) A hydrogel according to claim 1 which comprises 0.5 to 3.4% of the polyacrylamide by weight, based on the total weight of the hydrogel.

50. (Previously presented) A hydrogel according to claim 1 which comprises 0.5 to 3.3% of the polyacrylamide by weight, based on the total weight of the hydrogel.

51. (New) A bio-stable hydrogel for use as an endoprosthesis, the hydrogel comprising:  
a polyacrylamide which consists essentially of a polymer of acrylamide cross-linked with methylene bis-acrylamide, wherein the acrylamide and methylene bis-acrylamide are combined in a molar ratio of 150:1 to 1000:1 and wherein the hydrogel comprises about 0.5 to less than 3.5% of the polyacrylamide by weight, based on the total weight of the hydrogel, and  
water or an aqueous solution,  
wherein the hydrogel comprises less than 50 ppm of acrylamide and methylene bis-acrylamide monomers; and wherein the hydrogel has an elasticity module from about 10 to 700 Pa and a complex viscosity from about 2 to 90 Pas.

52. (New) A bio-stable hydrogel for use as an endoprosthesis, the hydrogel comprising:  
about 0.5% to less than 3.5%, based on the total weight of the hydrogel, of a polymer consisting essentially of polyacrylamide cross-linked with methylene bis-acrylamide, wherein the acrylamide and methylene bis-acrylamide are combined in a molar ratio of 150:1 to 1000:1, and  
at least 95% water or an aqueous solution,  
wherein the hydrogel comprises less than 50 ppm of acrylamide and methylene bis-acrylamide monomers; and wherein the hydrogel has an elasticity module from about 10 to 700 Pa and a complex viscosity from about 2 to 90 Pas.

53. (New) A hydrogel of claim 1, 51 or 52, wherein the hydrogel is substantially free of any other polymeric content.